

Unit	No.	Score	Query Match	Length	DB	ID	Description
1	1764	100.0	1764	4	US-09-157-329-3	Sequence 3, Appl1	
2	1749.8	99.2	1764	4	US-08-642-684-1	Sequence 1, Appl1	
3	1749.8	99.2	1764	4	US-09-157-397-1	Sequence 1, Appl1	
4	1749.8	99.2	1764	4	US-09-517-871-21	Sequence 21, Appl1	
5	1748.2	99.1	1770	2	US-08-642-684-3	Sequence 3, Appl1	
6	1741.8	98.7	2631	1	US-08-510-215A-1	Sequence 1, Appl1	
7	1741.8	98.7	2631	4	US-09-517-871-19	Sequence 19, Appl1	
8	1264.8	71.7	1767	4	US-09-517-871-3	Sequence 5, Appl1	
9	1263.2	71.6	1779	4	US-09-517-871-1	Sequence 3, Appl1	
10	1261.6	71.5	2631	4	US-09-517-871-1	Sequence 1, Appl1	
11	1259.2	71.4	3317	2	US-08-633-476-1	Sequence 1, Appl1	
12	1259.6	71.1	1767	3	US-08-436-664-24	Sequence 24, Appl1	
13	1253.6	71.1	1767	3	US-09-135-642-24	Sequence 24, Appl1	
14	1253.6	71.1	1767	3	US-08-194-232A-24	Sequence 24, Appl1	
15	1253.6	71.1	1767	5	PCT-US95-04080-24	Sequence 24, Appl1	
16	1253.6	71.1	1773	3	US-09-436-664-26	Sequence 26, Appl1	
17	1253.6	71.1	1773	3	US-08-135-664-26	Sequence 26, Appl1	
18	1253.6	71.1	1773	3	US-08-394-232A-26	Sequence 26, Appl1	
19	1253.6	71.1	1773	5	PCT-US95-04080-26	Sequence 26, Appl1	
20	1253.6	71.1	2631	2	US-08-436-664-21	Sequence 21, Appl1	
21	1253.6	71.1	2631	2	US-08-436-664-31	Sequence 31, Appl1	
22	1253.6	71.1	2631	2	US-08-436-664-31	Sequence 31, Appl1	
23	1253.6	71.1	2631	3	US-09-135-642-21	Sequence 21, Appl1	
24	1253.6	71.1	2631	3	US-09-135-642-31	Sequence 31, Appl1	
25	1253.6	71.1	2631	3	US-09-135-642-33	Sequence 33, Appl1	
26	1253.6	71.1	2631	3	US-08-394-232A-21	Sequence 21, Appl1	
27	1253.6	71.1	2631	3	US-08-394-232A-31	Sequence 31, Appl1	

28	1253.6	71.1	2631	3	US-08-394-2322A-33	Sequence 23, App1
29	1253.6	71.1	2631	5	PCT-US95-04080-21	Sequence 21, App1
30	1253.6	71.1	2631	5	PCT-US95-04080-31	Sequence 31, App1
31	1253.6	71.1	2631	5	PCT-US95-04080-33	Sequence 33, App1
32	1253.6	71.1	2761	2	US-08-436-664-19	Sequence 19, App1
33	1253.6	71.1	2761	3	US-09-135-642-19	Sequence 19, App1
34	1253.6	71.1	2761	3	US-08-394-2322A-19	Sequence 19, App1
35	1253.6	71.1	2761	3	PCT-US95-04080-19	Sequence 19, App1
36	1253.6	71.1	2761	3	US-08-436-664-22	Sequence 22, App1
37	1253.4	71.0	1764	2	US-08-436-664-22	Sequence 22, App1
38	1253.4	71.0	1764	3	US-09-135-642-22	Sequence 22, App1
39	1253.4	71.0	1764	3	US-08-394-2322A-22	Sequence 22, App1
40	1254.6	70.6	1745	5	PCT-US95-04080-22	Sequence 22, App1
41	1254.6	70.6	1779	1	US-08-208-036-16	Sequence 16, App1
42	1244.6	70.6	2631	1	US-08-428-823-15	Sequence 15, App1
43	1244.6	70.6	2631	1	US-08-428-823-13	Sequence 13, App1
44	1244.6	70.6	3252	1	US-08-428-823-11	Sequence 11, App1
45	1244.6	70.6	3252	1	US-08-428-823-11	Sequence 11, App1

ALIGNMENTS

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US-09-157-397-3
; Sequence 3, Application US/09157397
; Patent No. 6,657,65
; GENERAL INFORMATION:
; APPLICANT: HUANG, GUOPAN
; APPLICANT: HUANG, WEI-HUA
; TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE
; TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT
; TITLE OF INVENTION: DYE-LABELLED DIDEOXYNUCLEOTIDES
; FILE REFERENCE: home sequencelisting
; CURRENT APPLICATION NUMBER: US/09/157,397
; CURRENT FILING DATE: 1998-09-21
; EARLIER APPLICATION NUMBER: 08/544,643
; EARLIER FILING DATE: 1995-10-18
; EARLIER APPLICATION NUMBER: 08/642,684
; EARLIER FILING DATE: 1996-05-03
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn Ver. 2.0 - beta
; SEQ ID NO 3
; LENGTH: 1764
; TYPE: DNA
; ORGANISM: Bacillus stearothermophilus
US-09-157-397-3

Query Match          100.0%; Score 1764; DB 4; Length 1764;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1764; Conservative 0; Mismatches 0; Indels 0; Gaps 0

QY      1 ATGCCGAAAGGGGAGAAACCGCTTGAGAGATGAGTGGCCATGCTTGACGTCATTACC 60
DB      1 ATGGCGGAAGGGAGAAACCGCTTGAGAGATGAGTGGCCATGCTTGACGTCATTACC 60

QY      61 GAAAGAGATGCTTGGCGGACAAAGGACAGCGCTTGCGTTGAGTGAATGGAAGAAACTACAC 120
DB      61 GAAAGAGATGCTTGGCGGACAAAGGACAGCGCTTGCGTTGAGTGAATGGAAGAAACTACAC 120

QY      121 GATGCCCGCGATTTGTCGAATTCGACTAGTGAAGAGCATGGCGATTTTATATGCGCCG 180
DB      121 GATGCCCGCGATTTGTCGAATTCGACTAGTGAAGAGCATGGCGATTTTATATGCGCCG 180

QY      181 GAGACCGCGCTGGCTGATTCGCAATTTTAAAGATGGCTTCCGAGTAAACGAAGAAAAA 240
DB      181 GAGACCGCGCTGGCTGATTCGCAATTTTAAAGATGGCTTCCGAGTAAACGAAGAAAAA 240

QY      241 AACATGTTTGAAGCAAGCGGCGAGTCGTTGCTTTAAAGTGAAGAAAGATTGACTTCG 300
DB      241 AACATGTTTGAAGCAAGCGGCGAGTCGTTGCTTTAAAGTGAAGAAAGATTGACTTCG 300

QY      301 GGGCGTGGCTTTGATTTATTTGCTCGCTGCTTATTGCTCAATCCGGCTCAAGATGCCGC 360

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Matches 1754: Conservative 0; Mismatches 7; Indels 0; Gaps 0;

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Qy 4 GCCGAGGAGAGAAACCGCTTGAGAGATGAGATTGGCATGCTGATTAACCGAA 63
Db 1 GCCGAGGAGAGAAACCGCTTGAGAGATGAGATTGGCATGCTGATTAACCGAA 60
Qy 64 GAGATGCTTCCGCAACAGGACAGCTTGTGCTGAGAGATGAGAGAAACATACACGAT 123
Db 61 GAGATGCTTCCGCAACAGGACAGCTTGTGCTGAGAGATGAGAGAAACATACACGAT 120
Qy 124 GCCCGATTTGCGAATCGCATGAGACGATGAGCGATTTTATTTATGCGCCGAG 183
Db 121 GCCCGATTTGCGAATCGCATGAGACGATGAGCGATTTTATTTATGCGCCGAG 180
Qy 184 ACCGCGCTGCTGATTCGCAATTTTATGAGATGCTTCCGATGAAAAGAAAGAAAGC 243
Db 181 ACCGCGCTGCTGATTCGCAATTTTATGAGATGCTTCCGATGAAAAGAAAGAAAGC 240
Qy 244 ATGTTGACGCCAGCGGCGCATGCTTGCCTTAAAGTGAAGAAAGAAATGAGCTTCCGCGC 303
Db 241 ATGTTGACGCCAGCGGCGCATGCTTGCCTTAAAGTGAAGAAAGAAATGAGCTTCCGCGC 300
Qy 304 GTCGCTTGAATTTATGCTGCTGCTATTTGCTCAATCCGCGCTGAGATGCGCGCAT 363
Db 301 GTCGCTTGAATTTATGCTGCTGCTATTTGCTCAATCCGCGCTGAGATGCGCGCAT 360
Qy 364 ATGCTGCTGCTGCGGCAAAATGAAACAATATGAAAGCGTGCCTGATGAGCGCTTAT 423
Db 361 ATGCTGCTGCTGCGGCAAAATGAAACAATATGAAAGCGTGCCTGATGAGCGCTTAT 420
Qy 424 GCGAAGAGCGTCAAGCGCTGCTGCGGAGCAACAGCTTCTGTAAGCATCTCTTCCG 483
Db 421 GCGAAGAGCGTCAAGCGCTGCTGCGGAGCAACAGCTTCTGTAAGCATCTCTTCCG 480
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Db 481 AAGCGGCGCACTTTGGGCGCTTGAAGCGCTTATGAGCATTTGCGGAGCAACGAA 540
Qy 544 CAAGATCAATTTATTAAGAACTTGAAGCAAGCGCTGCGGCAATTTTGGCTGAATGAA 603
Db 541 CAAGATCAATTTATTAAGAACTTGAAGCAAGCGCTGCGGCAATTTTGGCTGAATGAA 600
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Db 601 TTCACTGGGCTGAAGCTGATTAAGAAAGCGCTTGAACAGATGGCTTCCGAGCGGAA 660
Qy 664 CAATCGCTGCGCATGAGCAAGCGCATTTAGAGCTAGCGGCGCAAGAGCTCAATTAAC 723
Db 661 CAATCGCTGCGCATGAGCAAGCGCATTTAGAGCTAGCGGCGCAAGAGCTCAATTAAC 720
Qy 724 TCACCAAAACAGCTCGAGATCATTTTATTTGAAAAGCTGAGCTACCGGTCTGAAGAG 783
Db 721 TCACCAAAACAGCTCGAGATCATTTTATTTGAAAAGCTGAGCTACCGGTCTGAAGAG 780
Qy 784 ACGAAAAACAGCTATTTGACTTGGCTGATGCTTGAAGAACTTGGCGCGCATCATGAA 843
Db 781 ACGAAAAACAGCTATTTGACTTGGCTGATGCTTGAAGAACTTGGCGCGCATCATGAA 840
Qy 844 ATGCTGAAAACATTTGCAATTAACCGCAAGCTTGGCAACATGCAATCAAGTATATTGAA 903
Db 841 ATGCTGAAAACATTTGCAATTAACCGCAAGCTTGGCAACATGCAATCAAGTATATTGAA 900
Qy 904 GATTTGTTGAAAGTTGTGCGCCCTGATACCGGCAAGTGAAGTATGATTTCAACCAAGC 963
Db 901 GATTTGTTGAAAGTTGTGCGCCCTGATACCGGCAAGTGAAGTATGATTTCAACCAAGC 960
Qy 964 CTGACGCAACTGGGCGGCTGAGCTGCGCGCAAGCTTGAACATTTCCGATTCGG 1023
Db 961 CTGACGCAACTGGGCGGCTGAGCTGCGCGCAAGCTTGAACATTTCCGATTCGG 1020
Qy 1024 ACCCACTGGGCGGAGAAATCCGCAAGCGTTGCTCCGCTGAGAGCGGCACTGGCTATT 1083
Db 1021 CTCGAAAGAGGCGGAGAAATCCGCAAGCGTTGCTCCGCTGAGAGCGGCACTGGCTATT 1080

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Qy 1084 TTGCGCGCGCATTAATCAAAATTTGAAATTTGGCGCTTCCGCGCATATGCGCGATGACGAC 1143
Db 1081 TTGCGCGCGCATTAATCAAAATTTGAAATTTGGCGCTTCCGCGCATATGCGCGATGACGAC 1140
Qy 1144 AATCTAAATTTGAAGCGTTTCAACGCGCATTTGATTAATTAACAACAAAGCGCGATGACATT 1203
Db 1141 AATCTAAATTTGAAGCGTTTCAACGCGCATTTGATTAATTAACAACAAAGCGCGATGACATT 1200
Qy 1204 TTCCAGTTGACCGAAGAGAAATGACGCGCAACATGCGCGCGCGCAAGCGCGTTTAAAC 1263
Db 1201 TTCCAGTTGACCGAAGAGAAATGACGCGCAACATGCGCGCGCGCAAGCGCGTTTAAAC 1260
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Db 1381 ATGAAAAACATATGACAAAGAGCGAAACAGAAAGATATGTAACAAGCTTGTGATCGG 1440
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Qy 1564 GATTTAGCGGCAAGCGCTGAAAGAGAGAGAGAGCTTCAAGCTCTTTTCTGCAAGTCAAT 1623
Db 1561 GATTTAGCGGCAAGCGCTGAAAGAGAGAGAGAGAGCTTCAAGCTCTTTTCTGCAAGTCAAT 1620
Qy 1624 GACGAGCTCATTTTGGAAAGCGCGCAAAAGAGAAATTTGAGCGATTAATGAGCTTGTTCG 1683
Db 1621 GACGAGCTCATTTTGGAAAGCGCGCAAAAGAGAAATTTGAGCGATTAATGAGCTTGTTCG 1680
Qy 1684 GAAATGATGAGACAGCGGTTACGCTCGCGCGCGCTGAAAGTGAATGCAATCAATGAGCGC 1743
Db 1681 GAAATGATGAGACAGCGGTTACGCTCGCGCGCGCTGAAAGTGAATGCAATCAATGAGCGC 1740
Qy 1744 CCACATGCTATGATGCCAA 1764
Db 1741 CCACATGCTATGATGCCAA 1761

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RESULT 3
US-09-157-397-1
; Sequence 1, Application US/09157397
; Patent No. 6165765
; GENERAL INFORMATION:
; APPLICANT: HONG, GUOFAN
; APPLICANT: HUANG, WEI-HUA
; TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE
; TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT
; TITLE OF INVENTION: DYE-LABELLED DIBOXYNUCLEOTIDES
; FILE REFERENCE: hongsequence1isting
; CURRENT APPLICATION NUMBER: US/09/157,397
; CURRENT FILING DATE: 1998-09-21
; EARLIER APPLICATION NUMBER: 08/544,643
; EARLIER FILING DATE: 1995-10-18
; EARLIER APPLICATION NUMBER: 08/642,684
; EARLIER FILING DATE: 1996-05-03
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.0 - beta
; SEQ ID NO 1
; LENGTH: 1764
; TYPE: DNA
; ORGANISM: Bacillus stearothermophilus

US-09-157-397-1

Query Match 99.2%; Score 1749.8; DB 4; Length 1764;
 Best Local Similarity 99.6%; Pred. No. 0;
 Matches 1754; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

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 Db 1 GCCGAGGGGAGAAAACCGCTTGAAGAGATGAGATTGTCATCGTCACTTACCGAA 60
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 Qy 124 GCGCGGATTTGTGGAATGCGCATGTAAGACGACATGGGCGATTTTGTATGGCCCGAG 183
 Db 121 GCGCGGATTTGTGGAATGCGCATGTAAGACGACATGGGCGATTTTGTATGGCCCGAG 180
 Qy 184 ACCGCGCTGGCTGATTCGCAATTTTTCAGATGCTTGGCGATGAAACGAAAGAAAAC 243
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 Qy 424 GCGAAAGCGCTCAAGCGGTCTGCTGCGGACGAAACAGCGCTTCTAGCATCTCTTCCG 483
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 Db 661 CAAGTGGTGGCATTCGAGACGCGCATTTTACGACTAGCGCGCAAGGTTCAACATTAAC 720
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 Db 841 ATCGTGAAGAAACATTTGCTATTCGCGCAGCTTGGCAAACTGCAATCAACGATATTGAA 900
 Qy 904 GGAATGTTGAAAGTTGTGCGCTGATACCGGCAAGTGATACGATTTCAACCAAGCG 963
 Db 901 GGAATGTTGAAAGTTGTGCGCTGATACCGGCAAGTGATACGATTTCAACCAAGCG 960
 Qy 964 CTGACCGCAAACTGGGCGGCTCAGCTCGGCGGACCGCAACTTGGCAAAACATTCGATTCGG 1023
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Qy 1024 ACCCACTGGGCGGAAAATCCGCAAGCGTTCCTCCCTCAGACCGGACCTGCTCAT 1083
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 Qy 1084 TTCGCCCGCGATTACTCAAAATTGAATTGGCGGCTCTCGCCCATATGCCGATGACGAC 1143
 Db 1081 TTCGCCCGCGATTACTCAAAATTGAATTGGCGGCTCTCGCCCATATGCCGATGACGAC 1140
 Qy 1144 AATCTAATGAAGGTTCCAAACGCGATTTTGAATTCACCAAAAAGGCGGATGACATT 1203
 Db 1141 AATCTAATGAAGGTTCCAAACGCGATTTTGAATTCACCAAAAAGGCGGATGACATT 1200
 Qy 1204 TTCAGTTGACGGAAGAGAAATGACGCGCAACATGCGCCGCAAGGACCGGCTTAC 1263
 Db 1201 TTCAGTTGACGGAAGAGAAATGACGCGCAACATGCGCCGCAAGGACCGGCTTAC 1260
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 Db 1261 TACGATATGTTTACGGAATTAGCGATTTACGATTTGGCGCAAACTTGAACATTACGCG 1320
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 Db 1321 AAAGAGCTGCGCAATTTATGAAAGCTTACCTTCCGCGCTTCCGCGGCTAAGACAT 1380
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 Db 1621 GACGAGCTCATTTTGGAAAGCGCCCAAAAGAGAAATTGAGCATTTATGAGACTTGTTCG 1680
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 Db 1681 GAGTGAATGAGAGAGCGGCTTACGCTCGCGCGGCGGAGAAAGTGAATCAATTAACGC 1740
 Qy 1744 CCAACATGATATGATGCCAA 1764
 Db 1741 CCAACATGATATGATGCCAA 1761

RESULT 4
 US-09-517-871-21
 ; Sequence 21, Application US/09517871
 ; Patent No. 6436677

GENERAL INFORMATION:
 ; APPLICANT: Hartnett, John R.
 ; APPLICANT: Huang, Fen
 ; APPLICANT: Gu, Trent
 ; TITLE OF INVENTION: Method of Reverse Transcription
 ; FILE REFERENCE: PRWG-03833
 ; CURRENT APPLICATION NUMBER: US/09/517, 871
 ; NUMBER OF SEQ ID NOS: 24
 ; SOFTWARE: Patent Ver. 2.0
 ; SEQ ID NO 21
 ; LENGTH: 1764
 ; TYPE: DNA
 ; ORGANISM: Bacillus stearothermophilus
 US-09-517-871-21

Db 1 GCCGAGGAGGAGAAACCGCTTGAGAGATGGAGTTTGCATCGTTGACGTCATTACCGAA 60
 QY GAGATGCTTGGCCGACAAAGGAGCGCTTGTGTTGAGGTGATGGAAGAAAATACACGAT 120
 Db 61 GAGATGCTTGGCCGACAAAGGAGCGCTTGTGTTGAGGTGATGGAAGAAAATACACGAT 120
 QY 121 GCCCGCATGTTGCGGAATCGCATAGTGAAGAGCATGCGGAGATTTTATGCGCCCGGAG 180
 Db 121 GCCCGCATGTTGCGGAATCGCATAGTGAAGAGCATGCGGAGATTTTATGCGCCCGGAG 180
 QY 181 ACCGCGCTGGCTGATTCGCAATTTTATGAGCTTGCCTGATGAAAGAAAAGG 240
 Db 181 ACCGCGCTGGCTGATTCGCAATTTTATGAGCTTGCCTGATGAAAGAAAAGG 240
 QY 241 ATGTTTGAAGCCCAAGCGGAGAGTGTGCTTAAAGTGAAGAAATTTGAGCTTGGGCG 300
 Db 241 ATGTTTGAAGCCCAAGCGGAGAGTGTGCTTAAAGTGAAGAAATTTGAGCTTGGGCG 300
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 QY 361 ATGCTGCTGGCTGAGCAAAATGAAACATATGAAGCGTGCCTGATGAAAGCGCTTAT 420
 Db 361 ATGCTGCTGGCTGAGCAAAATGAAACATATGAAGCGTGCCTGATGAAAGCGCTTAT 420
 QY 421 GCGCAAGGCGTCAAGGCGTGTGCTGCGGAGCAAGACGCTTGTGATGAGCGCTTAT 480
 Db 421 GCGCAAGGCGTCAAGGCGTGTGCTGCGGAGCAAGACGCTTGTGATGAGCGCTTAT 480
 QY 481 AAAGCGGCGACCATTTGGGCGCTTGAGCAGCGCTTATGAGCAATTTGCGGAAACAACGA 540
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 Db 601 TTCACTGCGGCTGAAGCTGATACAAAGCGGCTTGAACAGATGCGCTTGAAGCGG 660
 QY 661 CAACTGCTGCGCATGAGCAGCGCATTTACGATGCGGCGCAAGATTCACATTAAC 720
 Db 661 CAACTGCTGCGCATGAGCAGCGCATTTACGATGCGGCGCAAGATTCACATTAAC 720
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 Db 781 ACGAAAACAGGCTATTCGACTTGGCTGATGCTTGAAGAGCTTGGCGCGCATGAA 840
 QY 841 ATGCTGAAAACATTTTGAATTCAGCGCAGCTTGGCAAACTGCAATCAAGCTATTTGA 900
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 Db 1021 CTGAGAGAGGCGGAGAAATCGCGCAAGCGTTGCTCCGTCAGAGCGGATTCGATTT 1080
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QY 1141 AATCTAATTAAGCGCTTCCACGCGATTTGATATTCACACAAAAACGCGATGACATT 1200
 Db 1141 AATCTAATTAAGCGCTTCCACGCGATTTGATATTCACACAAAAACGCGATGACATT 1200
 QY 1201 TTCCAGTTGAGGAGAGAGAAATCGCGCAACATGCGCCCGCAGGCAAGCGCTTAAC 1260
 Db 1201 TTCCAGTTGAGGAGAGAGAAATCGCGCAACATGCGCCCGCAGGCAAGCGCTTAAC 1260
 QY 1261 TTGCGATCGTTTACGAAATTAAGCAATTAAGATGCGGCAAACTTAAACGCGC 1320
 Db 1261 TTGCGATCGTTTACGAAATTAAGCAATTAAGATGCGGCAAACTTAAACGCGC 1320
 QY 1321 AAAGAAAGCTGCGGAAATTTATGCAAGCTTATCGGCAAGCTTCCGCGGTAAAGCAT 1380
 Db 1321 AAAGAAAGCTGCGGAAATTTATGCAAGCTTATCGGCAAGCTTCCGCGGTAAAGCAT 1380
 QY 1381 ATGAAAAACATGATGCAAGAGCGAAACAGAAAGATATGAGCAACGCTTGTGATCG 1440
 Db 1381 ATGAAAAACATGATGCAAGAGCGAAACAGAAAGATATGAGCAACGCTTGTGATCG 1440
 QY 1441 CCGCGCTATTTGCTGATATTAACAAGCGCAATTTCAAGCTCGGATTTGACAGCGG 1500
 Db 1441 CCGCGCTATTTGCTGATATTAACAAGCGCAATTTCAAGCTCGGATTTGACAGCGG 1500
 QY 1501 ACGGCAATGAAACAGCCCAATTCAGAGAAAGCGCGCTGACATTTAAAAAAGCATGAT 1560
 Db 1501 ACGGCAATGAAACAGCCCAATTCAGAGAAAGCGCGCTGACATTTAAAAAAGCATGAT 1560
 QY 1561 GATTTAGCGGCAAGCGCTTAAAGAGAGAGAGCTTCAAGCTTCTGCAAGTGCAT 1620
 Db 1561 GATTTAGCGGCAAGCGCTTAAAGAGAGAGAGCTTCAAGCTTCTGCAAGTGCAT 1620
 QY 1621 GAGGAGCTCATTTTGAAGCGCCAAAGAGAAATTTGAGCATTTATGAGCTTTCG 1680
 Db 1621 GAGGAGCTCATTTTGAAGCGCCAAAGAGAAATTTGAGCATTTATGAGCTTTCG 1680
 QY 1681 GAAATGATGAGAGAGCGGCTTACGCTCCGCGCTGAAAGTGCATTAACATGACGCG 1740
 Db 1681 GAAATGATGAGAGAGCGGCTTACGCTCCGCGCTGAAAGTGCATTAACATGACGCG 1740
 QY 1741 CCAACATGATGATGATGCCAATTA 1764
 Db 1741 CCAACATGATGATGATGCCAATTA 1764

RESULT 2
 US-09-157-397-1
 ; Sequence 1, Application US/09157397

; Patent No. 6,165,765

; GENERAL INFORMATION:

; APPLICANT: HONG, GUOFAN

; APPLICANT: HUANG, WEI-HUA

; TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE

; TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT

; FILE REFERENCE: homologous nucleotides

; CURRENT FILING DATE: US/09/157,397

; EARLIER FILING DATE: 1998-09-21

; EARLIER APPLICATION NUMBER: 08/544,643

; EARLIER FILING DATE: 1995-10-18

; EARLIER APPLICATION NUMBER: 08/642,684

; NUMBER OF SEQ ID NOS: 11

; SOFTWARE: Patent Ver. 2.0 - beta

; SEQ ID NO: 1

; LENGTH: 1764

; TYPE: DNA

; ORGANISM: Bacillus stearothermophilus

; US-09-157-397-1

Query Match 100.0%; Score 1764; DB 4; Length 1764;
 Best Local Similarity 100.0%; Pred. No. 0;

Matches 1764; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GCCGAGGGGAGAAACCCCTTGAGAGATGAGTTGGCATGCTGATACCGAA 60
 Db 1 GCCGAGGGGAGAAACCCCTTGAGAGATGAGTTGGCATGCTGATACCGAA 60

Qy 61 GAGATGCTGCGCAAGAGAGCGCTTGTGTTGAGTGAAGAAAGAACTACACGAT 120
 Db 61 GAGATGCTGCGCAAGAGAGCGCTTGTGTTGAGTGAAGAAAGAACTACACGAT 120

Qy 121 GCCCGATTGTGCGAATGCACTAGTGAACGAGCATGGGCGATTTTATGCGCCGAG 180
 Db 121 GCCCGATTGTGCGAATGCACTAGTGAACGAGCATGGGCGATTTTATGCGCCGAG 180

Qy 181 ACCGCGCTGCTGATTCGCAATTTTACATGCTTGGCGATGAACGAGAAAAAGC 240
 Db 181 ACCGCGCTGCTGATTCGCAATTTTACATGCTTGGCGATGAACGAGAAAAAGC 240

Qy 241 ATGTTGACGCGCAAGCGGCGAGTGTGCTTAAAGTGAAGAAATGAGCTTGCAGG 300
 Db 241 ATGTTGACGCGCAAGCGGCGAGTGTGCTTAAAGTGAAGAAATGAGCTTGCAGG 300

Qy 301 GTCCGCTTTGATTTATTTCTGCTGCTATTTGCTCAATCCGCGTCAAGATGCGCGAT 360
 Db 301 GTCCGCTTTGATTTATTTCTGCTGCTATTTGCTCAATCCGCGTCAAGATGCGCGAT 360

Qy 361 ATCCGCTGCTGCGCAAAATGAAACATATGAAAGCGGTGCGATGAGCGGCTAT 420
 Db 361 ATCCGCTGCTGCGCAAAATGAAACATATGAAAGCGGTGCGATGAGCGGCTAT 420

Qy 421 GGGCAAGGCGTCAAGCGGCTGCGCGAGCAAGAGCTTGCAGAGATGCTGTTGCG 480
 Db 421 GGGCAAGGCGTCAAGCGGCTGCGCGAGCAAGAGCTTGCAGAGATGCTGTTGCG 480

Qy 481 AAAGCGGAGCCATTTGGGCGCTTGAAGAGCGCTTATGAGCATTTGGGAGAACAGAA 540
 Db 481 AAAGCGGAGCCATTTGGGCGCTTGAAGAGCGCTTATGAGCATTTGGGAGAACAGAA 540

Qy 541 CAAGATCAATTTATTAACGAAGCTTGAAGAGCGCTTGAAGAGCGCTTGAAGAG 600
 Db 541 CAAGATCAATTTATTAACGAAGCTTGAAGAGCGCTTGAAGAGCGCTTGAAGAG 600

Qy 601 TTCACTGCGGCTGAAGCTGATCAAGAGCGCTTGAAGAGCGCTTGAAGAGCG 660
 Db 601 TTCACTGCGGCTGAAGCTGATCAAGAGCGCTTGAAGAGCGCTTGAAGAGCG 660

Qy 661 CAACGCTGCTGCTGAAGAGCGCTTGAAGAGCGCTTGAAGAGCGCTTGAAGAG 720
 Db 661 CAACGCTGCTGCTGAAGAGCGCTTGAAGAGCGCTTGAAGAGCGCTTGAAGAG 720

Qy 721 TCACCAAAACAGCTCGAGTCAATTTTATTTGAAGAGCTGAGCTACCGGTCTGAAG 780
 Db 721 TCACCAAAACAGCTCGAGTCAATTTTATTTGAAGAGCTGAGCTACCGGTCTGAAG 780

Qy 781 ACAGAAACAGCTATTTGCACTTGGCTGATGCTTGAAGAGCTTGGCGCGCATGAA 840
 Db 781 ACAGAAACAGCTATTTGCACTTGGCTGATGCTTGAAGAGCTTGGCGCGCATGAA 840

Qy 841 ATCGTGAAGAAATTTTGAATTAACGCGCATTTGCAATCAAGATTAATGAA 900
 Db 841 ATCGTGAAGAAATTTTGAATTAACGCGCATTTGCAATCAAGATTAATGAA 900

Qy 901 GATTTGTTGAAGTTGTGCGCTGATACCGGCAAGTGCATACATGTTCAACAGCG 960
 Db 901 GATTTGTTGAAGTTGTGCGCTGATACCGGCAAGTGCATACATGTTCAACAGCG 960

Qy 961 CTGAGCGCAAACTGGGCGCTGAGCTGCGCGAGCGCACTTGAAGAAACATTCGATTCG 1020
 Db 961 CTGAGCGCAAACTGGGCGCTGAGCTGCGCGAGCGCACTTGAAGAAACATTCGATTCG 1020

Qy 1021 CTGAGAGGAGGCGGAGAAATCCGCAAGGCTTGTCCGCTCAGAGCGGATGCTCAT 1080
 Db 1021 CTGAGAGGAGGCGGAGAAATCCGCAAGGCTTGTCCGCTCAGAGCGGATGCTCAT 1080

Qy 1081 TTGCGCGCGATTAATCAAAATTTGAATTTGCGGCTGCTGCGCATATCGCGATGAC 1140
 Db 1081 TTGCGCGCGATTAATCAAAATTTGAATTTGCGGCTGCTGCGCATATCGCGATGAC 1140

Qy 1141 AATCAATTAAGCGTTTCAACGCGATTTGATATTCACAAAGAGCGGATGAT 1200
 Db 1141 AATCAATTAAGCGTTTCAACGCGATTTGATATTCACAAAGAGCGGATGAT 1200

Qy 1201 TTCCAGTTGAGCGAAGAGATGACCGGCAATGCGCGCGCAAGAGCGGCTTAA 1260
 Db 1201 TTCCAGTTGAGCGAAGAGATGACCGGCAATGCGCGCGCAAGAGCGGCTTAA 1260

Qy 1261 TTGCGTATGCTTTTACGAAATTAAGATTAAGATTTGCGGCGCAAACTTGAACGCG 1320
 Db 1261 TTGCGTATGCTTTTACGAAATTAAGATTAAGATTTGCGGCGCAAACTTGAACGCG 1320

Qy 1321 AAGAGAGCTGCGCAATTTATGCAAGCTTTCAGCTTTCGCGCGTAAAGCATAT 1380
 Db 1321 AAGAGAGCTGCGCAATTTATGCAAGCTTTCAGCTTTCGCGCGTAAAGCATAT 1380

Qy 1381 ATGAGAAACATATGTCAGAAAGCGAAACAGAAAGATATGACACGCTGTCATCG 1440
 Db 1381 ATGAGAAACATATGTCAGAAAGCGAAACAGAAAGATATGACACGCTGTCATCG 1440

Qy 1441 CGCGCTATTTGCTGATATTTACAGCGCGCAATTTCAAGCTTTCGCGAGTTCG 1500
 Db 1441 CGCGCTATTTGCTGATATTTACAGCGCGCAATTTCAAGCTTTCGCGAGTTCG 1500

Qy 1501 ACAGCATGAAACAGCGCAATTTCAAGAGCGCGCTGACATTTATTAAGAGCATAT 1560
 Db 1501 ACAGCATGAAACAGCGCAATTTCAAGAGCGCGCTGACATTTATTAAGAGCATAT 1560

Qy 1561 GATTTAGCGGACGCGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620
 Db 1561 GATTTAGCGGACGCGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620

Qy 1621 GAGAGCTCATTTTGAAGAGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAG 1680
 Db 1621 GAGAGCTCATTTTGAAGAGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAG 1680

Qy 1681 GAAGTATGAG 1740
 Db 1681 GAAGTATGAG 1740

Qy 1741 CCAACATGATGATGCGCAATTA 1764
 Db 1741 CCAACATGATGATGCGCAATTA 1764

RESULT 3
 US-09-517-871-21
 ; Sequence 21, Application US/09517871
 ; Patent No. 6436677
 ; GENERAL INFORMATION:
 ; APPLICANT: Hartnet, John R.
 ; APPLICANT: Huang, Fen
 ; TITLE OF INVENTION: Method of Reverse Transcription
 ; FILE REFERENCE: PMG-03833
 ; CURRENT APPLICATION NUMBER: US/09/517, 871
 ; CURRENT FILING DATE: 2000-03-02
 ; NUMBER OF SEQ ID NOS: 24
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 21
 ; LENGTH: 1764
 ; TYPE: DNA
 ; ORGANISM: Bacillus stearothermophilus
 ; US-09-517-871-21

Query Match 100.0%; Score 1764; DB 4; Length 1764;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 1764; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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 Db 1 GCCGAGGAGGAGAAACCGCTTGAGAGATGGAAGTTTCCATCTGTAAGTCAATTAACGGA 60
 QY 61 GAGATGCTTGCGCAAGGAGCGCTTGCTTGAGTGATGGAAGAAACATACACAGAT 120
 Db 61 GAGATGCTTGCGCAAGGAGCGCTTGCTTGAGTGATGGAAGAAACATACACAGAT 120
 QY 121 GCCCGATTTGTCGAGATGCACTAGTGAACGAGCATGGGCGATTTTTTATGCGCCGAG 180
 Db 121 GCCCGATTTGTCGAGATGCACTAGTGAACGAGCATGGGCGATTTTTTATGCGCCGAG 180
 QY 181 ACCGCGCTGCTGATTTCCCAATTTTAAAGATGAGTGGCCGATGAACGAGAAAGAAC 240
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 QY 241 ATGTTGACGCAAGCGGCGAGCTTGCTTAAGTGAAGAAATGAGCTTGCGGCG 300
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 Db 601 TTCACCTGGGCTGAGTGAATCAAGCGGCTTGAAACAGATGGCTGCGAGCTGCGGAA 660
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 Db 661 CAACTGCTGCTGAGTGAAGCGCATTTTACGAGCTAGCGGCGCAAGATTTCAATTAAC 720
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 Db 781 AGGAAACAGGCTATTCGACTTGCGCTGATGCTTGAAGAGCTTGCGCGCATGAA 840
 QY 841 ATGCTGAAACATTTTGAATTAACCGCAGCTTGCGCAACCTGCAATCAAGTATTTGAA 900
 Db 841 ATGCTGAAACATTTTGAATTAACCGCAGCTTGCGCAACCTGCAATCAAGTATTTGAA 900
 QY 901 GGAATTTGAAAGTTGTGCGCTGATACCGGCAAGTGTGATGATTTCAACCAAGCG 960
 Db 901 GGAATTTGAAAGTTGTGCGCTGATACCGGCAAGTGTGATGATTTCAACCAAGCG 960
 QY 961 CTGAGCGCAACTGCGGCGCTGAGCTGCGCGAGCGCAACTTGCAAAACATTCGATTCG 1020
 Db 961 CTGAGCGCAACTGCGGCGCTGAGCTGCGCGAGCGCAACTTGCAAAACATTCGATTCG 1020
 QY 1021 CTGGAAGAGGCGGAGAAATCCGCAAGCTTGTCCCTGCAAGCGCGAGCTGGCTCAT 1080
 Db 1021 CTGGAAGAGGCGGAGAAATCCGCAAGCTTGTCCCTGCAAGCGCGAGCTGGCTCAT 1080

QY 1081 TTGCGCGCGATTAATCAAAATTAATGCGGCTCTCGCCCATATCGCGATGAGAC 1140
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 QY 1141 AATCTAATTAAGCGTTTCAACGCGATTTGATATTCACAAAAAACGCGATGAGCAT 1200
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 Db 1441 CGCGCTATTTGCTGATTAAGAGCGCAATTTCAACGCTGCGAGCTTTGCAAGCGG 1500
 QY 1501 ACGGCGATGAACAGCGCAATTTCAAGAAAGCGCGCTGACATTAATTAAGAAAGCATAT 1560
 Db 1501 ACGGCGATGAACAGCGCAATTTCAAGAAAGCGCGCTGACATTAATTAAGAAAGCATAT 1560
 QY 1561 GATTTAGCGGCAAGCGCTGAAGAAAGAGAGAGCTTCAAGCTGCTGCTGCTGCAAGTGCAT 1620
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 QY 1681 GAAATGATGAGAGAGCGCTTACGCTGCGCGCTGCGCTGAGAAAGTGAATTAATGAGCG 1740
 Db 1681 GAAATGATGAGAGAGCGCTTACGCTGCGCGCTGCGCTGAGAAAGTGAATTAATGAGCG 1740
 QY 1741 CCAACATGATGATGATGCAATTA 1764
 Db 1741 CCAACATGATGATGATGCAATTA 1764

RESULT 4
 US-08-642-684-3
 ; Sequence 3, Application US/08642684
 ; Patent No. 5834253
 ; GENERAL INFORMATION:
 ; APPLICANT: HONG, GUO FAN
 ; APPLICANT: PENG, ZHAI
 ; APPLICANT: HUANG, WEI-HUA
 ; TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
 ; NUMBER OF SEQUENCES: 15
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: CUSHMAN, DAREY & CUSHMAN
 ; STREET: 1100 NEW YORK AVENUE, N.W.
 ; CITY: WASHINGTON
 ; STATE: D.C.
 ; COUNTRY: USA
 ; ZIP: 20005
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent in Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:

GenCore version 5.1.3
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 27, 2003, 15:14:10 ; Search time 13.9761 Seconds
(without alignments)
1233.661 Million cell updates/sec

Title: US-09-878-131-2

Perfect score: 2952
Sequence: 1 AEGEKPLEMEFPAIVDTVE.....TLRVPKVDHYGPTWYDAK 586

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Minimum DB seg length: 0
Maximum DB seg length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA:*
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6: /cgn2_6/prodata/1/1aa/backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2941.5	99.6	587	2	US-08-642-684-2
2	2941.5	99.6	587	4	US-09-157-397-2
	2941.5	99.6	587	4	US-09-517-871-22
	2937.5	99.5	589	2	US-08-642-684-4
	2920.5	98.9	876	2	US-08-510-215A-2
6	2920.5	98.9	876	4	US-09-517-871-20
7	2919.5	98.9	587	4	US-09-157-397-4
8	2649.5	89.8	587	2	US-08-436-664-23
9	2649.5	89.8	587	3	US-09-135-642-23
10	2649.5	89.8	587	3	US-08-394-232A-23
11	2649.5	89.8	587	5	PCT-US95-04080-23
12	2649.5	89.8	588	2	US-08-436-664-25
13	2649.5	89.8	588	3	US-09-135-642-25
14	2649.5	89.8	588	3	US-08-394-232A-25
15	2649.5	89.8	588	5	PCT-US95-04080-25
16	2649.5	89.8	590	2	US-08-436-664-27
17	2649.5	89.8	590	3	US-09-135-642-27
18	2649.5	89.8	590	3	US-08-394-232A-27
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31	2649.5	89.8	876	5	PCT-US95-04080-34	Sequence 34, Appl
32	2644.5	89.6	876	2	US-08-633-476-2	Sequence 2, Appl
33	2643.5	89.5	588	4	US-09-517-871-6	Sequence 6, Appl
34	2643.5	89.5	592	4	US-09-517-871-4	Sequence 4, Appl
35	2643.5	89.5	876	4	US-09-517-871-2	Sequence 2, Appl
36	2630	89.1	593	1	US-08-208-036-17	Sequence 17, Appl
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38	2630	89.1	877	1	US-08-208-036-14	Sequence 14, Appl
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41	2596.5	88.0	954	3	US-09-057-969-2	Sequence 2, Appl
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43	2052.5	69.5	1084	1	US-08-717-515-6	Sequence 6, Appl
44	2052.5	69.5	1276	1	US-08-717-515-8	Sequence 8, Appl
45	2048.5	69.4	876	1	US-08-717-515-4	Sequence 4, Appl

ALIGNMENTS

RESULT 1
US-08-642-684-2
Sequence 2, Application US/08642684
Patent No. 6842684
GENERAL INFORMATION:
APPLICANT: HONG, GUO FAN
APPLICANT: FENG, ZHAI
APPLICANT: HUANG, WEI-HUA
TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
TITLE OF INVENTION: 3'-5' EXONUCLEASE ACTIVITY
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESSES:
ADDRESSES: CUSHMAN, DARBY & CUSHMAN
STREET: 1100 NEW YORK AVENUE, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/642,684
FILING DATE: 03-MAY-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: CHAPIN, MARILAN K.
REGISTRATION NUMBER: 35,843
REFERENCE/DOCKET NUMBER: 4694/219502
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3711
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 587 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-642-684-2
Query Match 99.6%; Score 2941.5; DB 2; Length 587;
Best Local Similarity 99.8%; Pred. No. 2,6e-204;
Matches 586; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
1 AEGEKPLEMEFPAIVDTVEEMLADKALVVEWEEYDAPVIGIALVNEHGRFMRPE 60
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Db 61 TALADSOFLAMLADETKKSMPDAKRAVVALKWKGIELRGVAFDULLAAAYLNPADAGD 120
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Qy 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Db 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
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Db 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240
Qy 241 SPKQGVILFEKQLPVLKTKTGSTSDADVLEKLA PHHEIVENI LHYROLGLQSTYIE 300
Db 241 SPKQGVILFEKQLPVLKTKTGSTSDADVLEKLA PHHEIVENI LHYROLGLQSTYIE 300
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Db 301 GLKVVPRDPT-KVHTMFNOALTOTGRLSAEPNLQNIPIRLEGKRIQAFVSEPDMLI 359
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Db 361 PAADYSQIELRVLAHIAADDNLI EA FORDLIHTKTAMDIFOLSEEVYTNMRRQAKAVN 419
Qy 420 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 479
Db 420 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 479
Qy 421 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 480
Db 421 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 480
Qy 480 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 539
Db 480 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 539
Qy 481 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 540
Db 481 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 540
Qy 540 DELILEAPKEIEIRLCGLVPEVMEQAVTLRVPLKVDYHGPWTYDAK 586
Db 541 DELILEAPKEIEIRLCGLVPEVMEQAVTLRVPLKVDYHGPWTYDAK 587

RESULT 2
US-09-157-397-2
; Sequence 2, Application US/09157397
; Patent No. 6165765
; GENERAL INFORMATION:
; APPLICANT: HONG, GUOPAN
; APPLICANT: HUANG, WEI-HUA
; TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE
; TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT
; TITLE OF INVENTION: DYE-LABELLED DIBOXYNNUCLEOTIDES
; FILE REFERENCE: hongsequencelisting
; CURRENT APPLICATION NUMBER: US/09/157,397
; CURRENT FILING DATE: 1998-09-21
; EARLIER APPLICATION NUMBER: 08/544,643
; EARLIER FILING DATE: 1995-10-18
; EARLIER APPLICATION NUMBER: 08/542,684
; EARLIER FILING DATE: 1996-05-03
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn Ver. 2.0 - beta
; SEQ ID NO 2
; LENGTH: 587
; TYPE: PR1
; ORGANISM: Bacillus stearothermophilus
US-09-157-397-2

Query Match 99.6%; Score 2941.5; DB 4; Length 587;
Best Local Similarity 99.8%; Pred. No. 2.6e-204;
Matches 586; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Db 61 TALADSOFLAMLADETKKSMPDAKRAVVALKWKGIELRGVAFDULLAAAYLNPADAGD 120
Qy 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Db 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Qy 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Db 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Qy 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240
Db 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240
Qy 241 SPKQGVILFEKQLPVLKTKTGSTSDADVLEKLA PHHEIVENI LHYROLGLQSTYIE 300
Db 241 SPKQGVILFEKQLPVLKTKTGSTSDADVLEKLA PHHEIVENI LHYROLGLQSTYIE 300
Qy 301 GLKVVPRDPT-KVHTMFNOALTOTGRLSAEPNLQNIPIRLEGKRIQAFVSEPDMLI 359
Db 301 GLKVVPRDPT-KVHTMFNOALTOTGRLSAEPNLQNIPIRLEGKRIQAFVSEPDMLI 359
Qy 360 PAADYSQIELRVLAHIAADDNLI EA FORDLIHTKTAMDIFOLSEEVYTNMRRQAKAVN 419
Db 361 PAADYSQIELRVLAHIAADDNLI EA FORDLIHTKTAMDIFOLSEEVYTNMRRQAKAVN 419
Qy 420 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 479
Db 420 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 479
Qy 421 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 480
Db 421 FGIYVGSIDYGLAQNLTITRKEAAEFIERYPASFGVKQYMEINI VQBAKQGYVTTLLHR 480
Qy 480 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 539
Db 480 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 539
Qy 481 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 540
Db 481 RRYLPDITSRNFNVRSFAERTAMNTPIOGSADIIKKAMIDLAA RLKEEQLQARLLQVH 540
Qy 540 DELILEAPKEIEIRLCGLVPEVMEQAVTLRVPLKVDYHGPWTYDAK 586
Db 541 DELILEAPKEIEIRLCGLVPEVMEQAVTLRVPLKVDYHGPWTYDAK 587

RESULT 3
US-09-517-871-22
; Sequence 22, Application US/09517871
; Patent No. 6436677
; GENERAL INFORMATION:
; APPLICANT: Hartnett, John R.
; APPLICANT: Huang, Fen
; APPLICANT: Gu, Trent
; TITLE OF INVENTION: Method of Reverse Transcription
; FILE REFERENCE: PRMG-03833
; CURRENT APPLICATION NUMBER: US/09/517,871
; CURRENT FILING DATE: 2000-03-02
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
; LENGTH: 587
; TYPE: PR1
; ORGANISM: Bacillus stearothermophilus
US-09-517-871-22

Query Match 99.6%; Score 2941.5; DB 4; Length 587;
Best Local Similarity 99.8%; Pred. No. 2.6e-204;
Matches 586; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 AEGEPLBEMFAIVDYTEMLADKAAVVEVMEENYHDAPIVGIALVNEHGRFPMRPE 60
Db 1 AEGEPLBEMFAIVDYTEMLADKAAVVEVMEENYHDAPIVGIALVNEHGRFPMRPE 60
Qy 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Db 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Qy 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240
Db 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240

Qy 61 TALADSOFLAMLADETKKSMPDAKRAVVALKWKGIELRGVAFDULLAAAYLNPADAGD 120
Db 61 TALADSOFLAMLADETKKSMPDAKRAVVALKWKGIELRGVAFDULLAAAYLNPADAGD 120
Qy 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Db 121 IAAVAKKQYEA VRSDAVYGVKGRSLPDEQTLAEHLVRKAAAIWALBOPFMDLRLNNE 180
Qy 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240
Db 181 ODOLITLKEHLAAI LAEMEFVGNVDTKRLBOMGSELAEOQLRAIEQRIYELAGQEFNN 240

Db 181 QDOLLTLLEHALLAIIAEMFTGVNVDTRKLEQMGSELAEOURAIEQRIYELAGOEFNIN 240
 Qy 241 SPKQGLVILPEKLOLPVUKTKTGYSTSDVLEKLAAPHHEIVENILHYROLGKOSTYIE 300
 Db 241 SPKQGLVILPEKLOLPVUKTKTGYSTSDVLEKLAAPHHEIVENILHYROLGKOSTYIE 300
 Qy 301 GLKVRPBDT-KVHTMNOALTOGRLSAEPNLONIPIRLEBGRKIROAFVSEPDMLI 359
 Db 301 GLKVRPBDT-KVHTMNOALTOGRLSAEPNLONIPIRLEBGRKIROAFVSEPDMLI 360
 Qy 360 PAADYQIIEFLVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEBVTANMRQAKAVN 419
 Db 361 PAADYQIIEFLVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEBVTANMRQAKAVN 420
 Qy 420 FGIYVGISDYGLAQNLTITRKEAAEFIERYPASFGVKQYKQYKQYVTTLLHR 479
 Db 421 FGIYVGISDYGLAQNLTITRKEAAEFIERYPASFGVKQYKQYKQYVTTLLHR 480
 Qy 480 RRYLPDITSRNFNVSFAERTAMNTPIOGSADIIKKAMIDLAARLKEEOQARLLLOVH 539
 Db 481 RRYLPDITSRNFNVSFAERTAMNTPIOGSADIIKKAMIDLAARLKEEOQARLLLOVH 540
 Qy 540 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 586
 Db 541 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 587

RESULT 4

US-08-642-684-4
 ; Sequence 4, Application US/08642684
 ; Patent No. 5834253

GENERAL INFORMATION:

APPLICANT: HONG, GUO FAN
 APPLICANT: FENG, ZHAI
 APPLICANT: HUANG, WEI-HUA
 TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
 TITLE OF INVENTION: 3'-5' EXONUCLEASE ACTIVITY
 NUMBER OF SEQUENCES: 15
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
 STREET: 1100 NEW YORK AVENUE, N.W.
 CITY: WASHINGTON
 STATE: D.C.
 COUNTRY: USA
 ZIP: 20005

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/642,684
 FILING DATE: 03-MAY-1996

ATTORNEY/AGENT INFORMATION:

NAME: CHAPIN, MARLANA K.
 REGISTRATION NUMBER: 35,843
 REFERENCE/DOCKET NUMBER: 4694/219502
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-861-3711
 TELEFAX: 202-822-0944
 TELEX: 6714627 CUSH

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:
 LENGTH: 589 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-642-684-4

Query Match

99.5%; Score 2937.5; DB 2; Length 589;

Best Local Similarity 99.7%; Pred. No. 5,1e-204;
 Matches 585; Conservative 1; Mismatches 0; Indels 1; Gaps 1;

Qy 1 ABGKPIEEMFALVVDVITEEMLADKALVVEEENYHDAPIYIGALVNEHGFRRPE 60
 Db 3 AKGKPIEEMFALVVDVITEEMLADKALVVEEENYHDAPIYIGALVNEHGFRRPE 62
 Qy 61 TALADSOFLMADETKKSMPDAKRAVVALKWKGIELRGVAFDPLLAAYLLNPAODAGD 120
 Db 63 TALADSOFLMADETKKSMPDAKRAVVALKWKGIELRGVAFDPLLAAYLLNPAODAGD 122
 Qy 121 IAAVAKKQYEAVSDBAVYGKVKRSLPDEQTLAEHLVKKAAIIMALEOPFMDLRRNE 180
 Db 123 IAAVAKKQYEAVSDBAVYGKVKRSLPDEQTLAEHLVKKAAIIMALEOPFMDLRRNE 182
 Qy 181 QDOLLTLLEHALLAIIAEMFTGVNVDTRKLEQMGSELAEOURAIEQRIYELAGOEFNIN 240
 Db 183 QDOLLTLLEHALLAIIAEMFTGVNVDTRKLEQMGSELAEOURAIEQRIYELAGOEFNIN 242
 Qy 241 SPKQGLVILPEKLOLPVUKTKTGYSTSDVLEKLAAPHHEIVENILHYROLGKOSTYIE 300
 Db 243 SPKQGLVILPEKLOLPVUKTKTGYSTSDVLEKLAAPHHEIVENILHYROLGKOSTYIE 302
 Qy 301 GLKVRPBDT-KVHTMNOALTOGRLSAEPNLONIPIRLEBGRKIROAFVSEPDMLI 359
 Db 303 GLKVRPBDT-KVHTMNOALTOGRLSAEPNLONIPIRLEBGRKIROAFVSEPDMLI 362
 Qy 360 PAADYQIIEFLVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEBVTANMRQAKAVN 419
 Db 363 PAADYQIIEFLVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEBVTANMRQAKAVN 422
 Qy 420 FGIYVGISDYGLAQNLTITRKEAAEFIERYPASFGVKQYKQYKQYVTTLLHR 479
 Db 423 FGIYVGISDYGLAQNLTITRKEAAEFIERYPASFGVKQYKQYKQYVTTLLHR 482
 Qy 480 RRYLPDITSRNFNVSFAERTAMNTPIOGSADIIKKAMIDLAARLKEEOQARLLLOVH 539
 Db 483 RRYLPDITSRNFNVSFAERTAMNTPIOGSADIIKKAMIDLAARLKEEOQARLLLOVH 542
 Qy 540 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 586
 Db 543 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 589

RESULT 5

US-08-510-215A-2
 ; Sequence 2, Application US/08510215A
 ; Patent No. 5814506

GENERAL INFORMATION:

APPLICANT: KONG, Huimin
 APPLICANT: PELLETIER, John J.
 TITLE OF INVENTION: OVER-EXPRESSION AND PURIFICATION OF
 TITLE OF INVENTION: A TRUNCATED THERMOSTABLE DNA POLYMERASE BY PROTEIN
 NUMBER OF SEQUENCES: 14
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: GREGORY D. WILLIAMS; NEW ENGLAND
 ADDRESSEE: BIOLABS, INC.
 STREET: 32 TOZER ROAD
 CITY: BEVERLY
 STATE: MASSACHUSETTS
 COUNTRY: US
 ZIP: 01915

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/510,215A
 FILING DATE: 02-AUG-1995
 CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
 NAME: WILLIAMS, GREGORY D.
 REGISTRATION NUMBER: 30901
 REFERENCE/DOCKET NUMBER: NEB-113
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (508) 927-5054
 TELEFAX: (508) 927-1705
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 876 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-510-215A-2

Query Match 98.9%; Score 2920.5; DB 2; Length 876;
 Best Local Similarity 99.1%; Pred. No. 1.4e-202;
 Matches 582; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

1 AGEKPLEEMFAIVDVTTEMLADKALVVEEENYHDAPIVGIALVNEHGRPFMRPE 60
 290 AGEKPLEEMFAIVDVTTEMLADKALVVEEENYHDAPIVGIALVNEHGRPFMRPE 349
 61 TALADSQFLAMLADETKKSMPDAKRAVVALKKKGIELRGVAFDILLAAVLLNPADQAGD 120
 350 TALADSQFLAMLADETKKSMPDAKRAVVALKKKGIELRGVAFDILLAAVLLNPADQAGD 409
 121 IAAVAKMKQYEAVRSDEAVYGVKRSLEPDEQTLAEHLVRKAAIWMLEQPFMDLRRNE 180
 410 IAAVAKMKQYEAVRSDEAVYGVKRSLEPDEQTLAEHLVRKAAIWMLEQPFMDLRRNE 469
 181 ODQLTKLEHAAIILAEHFTGVNDTKLEQWSELAELQRAIEQRIYELAGQEFNIN 240
 470 ODQLTKLEHAAIILAEHFTGVNDTKLEQWSELAELQRAIEQRIYELAGQEFNIN 529
 241 SPKQLGVILFELQOLPVLKKTGTGYSADVLEKLAIPHHEIYENILHYROLGKLOSTYIE 300
 530 SPKQLGVILFELQOLPVLKKTGTGYSADVLEKLAIPHHEIYENILHYROLGKLOSTYIE 589
 301 GLTKVVRPDT-KVHTMFOALQTGRLSSAEPNLQNIPIRLEGGKIRQAFVSEPDMLI 359
 590 GLTKVVRPDT-KVHTMFOALQTGRLSSAEPNLQNIPIRLEGGKIRQAFVSEPDMLI 649
 360 FAADYSQIELRLAHLADDDNLIIEAFORDLHTKTAMDIFOLSEEVYANMRQAKAN 419
 650 FAADYSQIELRLAHLADDDNLIIEAFORDLHTKTAMDIFOLSEEVYANMRQAKAN 709
 420 FGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPVKQYMNIVQEAOKQGYVTTLLHR 479
 10 FGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPVKQYMNIVQEAOKQGYVTTLLHR 769
 480 RRYLPDITSRNFNVSFAERTAMNTPIQSSAADIKKAMIDLAARKEBOLQARLLQVH 539
 770 RRYLPDITSRNFNVSFAERTAMNTPIQSSAADIKKAMIDLAARKEBOLQARLLQVH 829
 540 DELILEAPKEIEIRLCELVEPVEQAVTLRVPLKVDYHGYPTWYDAK 586
 830 DELILEAPKEIEIRLCELVEPVEQAVTLRVPLKVDYHGYPTWYDAK 876

RESULT 6
 US-09-517-871-20
 Sequence 20, Application US/0951871
 Patent No. 6436677

GENERAL INFORMATION:
 APPLICANT: Hartnec, John R.
 APPLICANT: Huang, Fen
 TITLE OF INVENTION: Method of Reverse Transcription
 FILE REFERENCE: PRMG-03833
 CURRENT APPLICATION NUMBER: US/09/517, 871
 NUMBER OF SEQ-ID NOS: 24

SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 20
 LENGTH: 876
 TYPE: PRT
 ORGANISM: Bacillus stearothermophilus
 US-09-517-871-20

Query Match 98.9%; Score 2920.5; DB 4; Length 876;
 Best Local Similarity 99.1%; Pred. No. 1.4e-202;
 Matches 582; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

1 AGEKPLEEMFAIVDVTTEMLADKALVVEEENYHDAPIVGIALVNEHGRPFMRPE 60
 290 AGEKPLEEMFAIVDVTTEMLADKALVVEEENYHDAPIVGIALVNEHGRPFMRPE 349
 61 TALADSQFLAMLADETKKSMPDAKRAVVALKKKGIELRGVAFDILLAAVLLNPADQAGD 120
 350 TALADSQFLAMLADETKKSMPDAKRAVVALKKKGIELRGVAFDILLAAVLLNPADQAGD 409
 121 IAAVAKMKQYEAVRSDEAVYGVKRSLEPDEQTLAEHLVRKAAIWMLEQPFMDLRRNE 180
 410 IAAVAKMKQYEAVRSDEAVYGVKRSLEPDEQTLAEHLVRKAAIWMLEQPFMDLRRNE 469
 181 ODQLTKLEHAAIILAEHFTGVNDTKLEQWSELAELQRAIEQRIYELAGQEFNIN 240
 470 ODQLTKLEHAAIILAEHFTGVNDTKLEQWSELAELQRAIEQRIYELAGQEFNIN 529
 241 SPKQLGVILFELQOLPVLKKTGTGYSADVLEKLAIPHHEIYENILHYROLGKLOSTYIE 300
 530 SPKQLGVILFELQOLPVLKKTGTGYSADVLEKLAIPHHEIYENILHYROLGKLOSTYIE 589
 301 GLTKVVRPDT-KVHTMFOALQTGRLSSAEPNLQNIPIRLEGGKIRQAFVSEPDMLI 359
 590 GLTKVVRPDT-KVHTMFOALQTGRLSSAEPNLQNIPIRLEGGKIRQAFVSEPDMLI 649
 360 FAADYSQIELRLAHLADDDNLIIEAFORDLHTKTAMDIFOLSEEVYANMRQAKAN 419
 650 FAADYSQIELRLAHLADDDNLIIEAFORDLHTKTAMDIFOLSEEVYANMRQAKAN 709
 420 FGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPVKQYMNIVQEAOKQGYVTTLLHR 479
 710 FGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPVKQYMNIVQEAOKQGYVTTLLHR 769
 480 RRYLPDITSRNFNVSFAERTAMNTPIQSSAADIKKAMIDLAARKEBOLQARLLQVH 539
 770 RRYLPDITSRNFNVSFAERTAMNTPIQSSAADIKKAMIDLAARKEBOLQARLLQVH 829
 540 DELILEAPKEIEIRLCELVEPVEQAVTLRVPLKVDYHGYPTWYDAK 586
 830 DELILEAPKEIEIRLCELVEPVEQAVTLRVPLKVDYHGYPTWYDAK 876

RESULT 7
 US-09-157-397-4
 Sequence 4, Application US/09157397
 Patent No. 6165765

GENERAL INFORMATION:
 APPLICANT: HONG, GUOFAN
 APPLICANT: HONG, WEI-HUA
 TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE
 TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT
 FILE REFERENCE: hongsequencelisting
 CURRENT APPLICATION NUMBER: US/09/157,397
 EARLIER FILING DATE: 1998-09-21
 EARLIER APPLICATION NUMBER: 08/544,643
 EARLIER FILING DATE: 1995-10-18
 EARLIER APPLICATION NUMBER: 08/642,684
 EARLIER FILING DATE: 1996-05-03
 NUMBER OF SEQ ID NOS: 11
 SOFTWARE: PatentIn Ver. 2.0 - beta
 SEQ ID NO 4
 LENGTH: 588

GenCore version 5.1.3
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 27, 2003, 15:14:10 ; Search time 14.0239 Seconds
(without alignments)
1233.661 Million cell updates/sec

Title: US-09-878-131-4

Perfect score: 2966
Sequence: 1 MAEGEKPLEMEKPAIVDVIT.....TLKVPKVDHYGPTWYDAK 588

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

1 number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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6: /cgm2_6/ptodata/1/1aa/backfilest.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2966	100.0	588	4	US-09-157-397-4
2	2936	99.0	587	2	US-08-642-684-2
3	2936	99.0	587	4	US-09-157-397-2
4	2932	98.9	589	2	US-09-517-871-22
5	2932	98.9	589	2	US-08-642-684-4
6	2915	98.3	876	2	US-08-510-215A-2
7	2915	98.3	876	4	US-09-517-871-20
8	2644	89.1	587	2	US-08-436-664-23
9	2644	89.1	587	3	US-09-135-642-23
10	2644	89.1	587	3	US-08-394-232A-23
11	2644	89.1	588	5	PCT-US95-04080-23
12	2644	89.1	588	2	US-08-436-664-25
13	2644	89.1	588	3	US-09-135-642-25
14	2644	89.1	588	3	US-08-394-232A-25
15	2644	89.1	588	5	PCT-US95-04080-25
16	2644	89.1	590	2	US-08-436-664-27
17	2644	89.1	590	3	US-09-135-642-27
18	2644	89.1	590	3	US-08-394-232A-27
19	2644	89.1	590	5	PCT-US95-04080-27
20	2644	89.1	876	2	US-08-436-664-20
21	2644	89.1	876	2	US-08-436-664-32
22	2644	89.1	876	2	US-08-436-664-34
23	2644	89.1	876	3	US-09-135-642-20
24	2644	89.1	876	3	US-09-135-642-32
25	2644	89.1	876	3	US-09-135-642-34
26	2644	89.1	876	3	US-08-394-232A-20
27	2644	89.1	876	3	US-08-394-232A-32

28	2644	89.1	876	3	US-08-394-232A-34	Sequence 34, Appl
29	2644	89.1	876	5	PCT-US95-04080-20	Sequence 20, Appl
30	2644	89.1	876	5	PCT-US95-04080-32	Sequence 32, Appl
31	2644	89.1	876	5	PCT-US95-04080-34	Sequence 34, Appl
32	2638	88.9	588	4	US-09-517-871-6	Sequence 6, Appl
33	2638	88.9	592	4	US-09-517-871-4	Sequence 4, Appl
34	2638	88.9	876	4	US-09-517-871-2	Sequence 2, Appl
35	2631	88.7	876	2	US-08-633-476-2	Sequence 2, Appl
36	2616.5	88.2	593	1	US-08-208-036-17	Sequence 17, Appl
37	2616.5	88.2	593	1	US-08-428-823-17	Sequence 17, Appl
38	2616.5	88.2	877	1	US-08-208-036-14	Sequence 14, Appl
39	2616.5	88.2	877	1	US-08-428-823-14	Sequence 14, Appl
40	2591	87.4	624	3	US-09-057-969-3	Sequence 3, Appl
41	2591	87.4	954	3	US-09-057-969-2	Sequence 2, Appl
42	2270	76.5	539	3	US-09-057-969-4	Sequence 4, Appl
43	2039	68.7	1084	1	US-08-717-515-6	Sequence 6, Appl
44	2039	68.7	1276	1	US-08-717-515-8	Sequence 8, Appl
45	2035	68.6	876	1	US-08-717-515-4	Sequence 4, Appl

ALIGNMENTS

RESULT 1									
US-09-157-397-4									
Sequence 4, Application US/09157397									
Patent No. 6165765									
GENERAL INFORMATION:									
APPLICANT: HONG, WEI-HUA									
TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE									
TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT									
FILE REFERENCE: hongsequence1isting									
CURRENT APPLICATION NUMBER: US/09/157,397									
EARLIER FILING DATE: 1998-09-21									
EARLIER FILING DATE: 1995-10-18									
EARLIER APPLICATION NUMBER: 08/642,684									
EARLIER FILING DATE: 1996-05-03									
NUMBER OF SEQ ID NOS: 11									
SOFTWARE: Patent In Ver. 2.0 - beta									
SEQ ID NO 4									
LENGTH: 588									
TYPE: PRT									
ORGANISM: Bacillus stearothermophilus									
US-09-157-397-4									
Query Match									
Best Local Similarity 100.0%; Score 2966; DB 4; Length 588;									
Matches 588; Conservative 0; Mismatches 0; Indels 0; Gaps 0;									
QY	1	MAEGEKPLEMEKPAIVDVITTEMLADKAAIVVEVMEENYHDAPIVIGALVNEHGRFFMRP	60						
DB	1	MAEGEKPLEMEKPAIVDVITTEMLADKAAIVVEVMEENYHDAPIVIGALVNEHGRFFMRP	60						
QY	61	ETALADSOFLAMLADETKSKMFPDKRAVVALKWKGIELRGVAFDPLLAAYLNPADAG	120						
DB	61	ETALADSOFLAMLADETKSKMFPDKRAVVALKWKGIELRGVAFDPLLAAYLNPADAG	120						
QY	121	DIAAFAKKQYEVARSDDAVYGVKGRSLPDEQTLAEHLVKKAAIWMLEQPFMDLNN	180						
DB	121	DIAAFAKKQYEVARSDDAVYGVKGRSLPDEQTLAEHLVKKAAIWMLEQPFMDLNN	180						
QY	181	EODDLTLLEALAAIILAEFEFTGVNVDTKRLQWGSIELAQLRAIEQRIYELAGQEFNI	240						
DB	181	EODDLTLLEALAAIILAEFEFTGVNVDTKRLQWGSIELAQLRAIEQRIYELAGQEFNI	240						
QY	241	NSPKQGLVILFEKQLPVLKKTGTGYSADVLEKLAIPHIEIVENIHYROLGKLGSTYI	300						
DB	241	NSPKQGLVILFEKQLPVLKKTGTGYSADVLEKLAIPHIEIVENIHYROLGKLGSTYI	300						
QY	301	EGLKVAVPDPTGKHTMTNQLTQGRLSAEPNLQNIPIPTPLGKRIQAIFVSEPBWL	360						

DB 301 EGLKVRPDGKVTMTFQALITGRSSAEPNIONIPRTPLRKIRQAIVPSEPDML 360
 QY 361 IFADYSQIELRVLAHIADDDNLIEAFORDLDIHTKTAMDFOLSEBEVTANMRROAKAV 420
 DB 361 IFADYSQIELRVLAHIADDDNLIEAFORDLDIHTKTAMDFOLSEBEVTANMRROAKAV 420
 QY 421 NYGIYGISDYGLAQNLTTRKEAAEFIERYPASFPGVQYMENTVOEAKOKGYVTTLLH 480
 DB 421 NYGIYGISDYGLAQNLTTRKEAAEFIERYPASFPGVQYMENTVOEAKOKGYVTTLLH 480
 QY 481 RRRYPDITSRNFNVSFAERTAMNTPIOGSAADIIKKAMIDLAARLKEEQOARLLQV 540
 DB 481 RRRYPDITSRNFNVSFAERTAMNTPIOGSAADIIKKAMIDLAARLKEEQOARLLQV 540
 QY 541 HDELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 588
 DB 541 HDELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 588

RESULT 2

US-09-157-397-2
 Sequence 2, Application US/08642684
 Patent No. 5834253
 GENERAL INFORMATION:
 APPLICANT: HONG, GUO FAN
 APPLICANT: FENG, ZHAI
 APPLICANT: HUANG, WEI-HUA
 TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
 TITLE OF INVENTION: 3'-5' EXONUCLEASE ACTIVITY
 NUMBER OF SEQUENCES: 15
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
 STREET: 1100 NEW YORK AVENUE, N.W.
 CITY: WASHINGTON
 STATE: D.C.
 COUNTRY: USA
 ZIP: 20005
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/642,684
 FILING DATE: 03-MAY-1996
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: CHAPIN, MARLANA K.
 REGISTRATION NUMBER: 35, 843
 REFERENCE/DOCKET NUMBER: 4694/219502
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-861-3711
 TELEFAX: 202-822-0944
 TELEX: 6714627 CUSH
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 587 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-642-684-2

Query Match 99.0%; Score 2936; DB 2; Length 587;
 Best Local Similarity 99.3%; Pred. No. 1.3e-211;
 Matches 583; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 2 AAGEKPLEMEFAIVDYTEEMLADKALVVEVMEENYHDAPIVGIALVNEHGRFMRPE 61
 DB 1 AAGEKPLEMEFAIVDYTEEMLADKALVVEVMEENYHDAPIVGIALVNEHGRFMRPE 60
 QY 62 TALADSOFPLAMTADETKKKSMFDKRAVVALKWKGIELRGVAFDILLAAVYLLNPADAGD 121

DB 61 TALADSOFPLAMTADETKKKSMFDKRAVVALKWKGIELRGVAFDILLAAVYLLNPADAGD 120
 QY 122 IAAVAKKQYAVASDEAVYKGYRSIPDEQTLAEHLVRKAAIIMALEOPFMDLRNE 181
 DB 121 IAAVAKKQYAVASDEAVYKGYRSIPDEQTLAEHLVRKAAIIMALEOPFMDLRNE 180
 QY 182 QDOLLTKLEHAAIILAEMEFTGVNDTKRLQWGSLEAQRAIEORIVYELAQEFENIN 241
 DB 181 QDOLLTKLEHAAIILAEMEFTGVNDTKRLQWGSLEAQRAIEORIVYELAQEFENIN 240
 QY 242 SPKOLGVLEFKQLPULKTKTGYSTSDVLEKLAHPHEVENVILHNRQKQOSTYIE 301
 DB 241 SPKOLGVLEFKQLPULKTKTGYSTSDVLEKLAHPHEVENVILHNRQKQOSTYIE 300
 QY 302 GLKVRPDGKVTMTFQALITGRSSAEPNIONIPRTPLRKIRQAIVPSEPDML 361
 DB 301 GLKVRPDGKVTMTFQALITGRSSAEPNIONIPRTPLRKIRQAIVPSEPDML 360
 QY 362 FAADYSQIELRVLAHIADDDNLIEAFORDLDIHTKTAMDFOLSEBEVTANMRROAKAV 421
 DB 361 FAADYSQIELRVLAHIADDDNLIEAFORDLDIHTKTAMDFOLSEBEVTANMRROAKAV 420
 QY 422 YGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPGVQYMENTVOEAKOKGYVTTLLH 481
 DB 421 YGIYVGISDYGLAQNLTTRKEAAEFIERYPASFPGVQYMENTVOEAKOKGYVTTLLH 480
 QY 482 RRRYPDITSRNFNVSFAERTAMNTPIOGSAADIIKKAMIDLAARLKEEQOARLLQV 541
 DB 481 RRRYPDITSRNFNVSFAERTAMNTPIOGSAADIIKKAMIDLAARLKEEQOARLLQV 540
 QY 542 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 588
 DB 541 DELLEAPKEIEIRLCELVPEVMEQAVTLRVPLKVDYHYGPTWYDAK 587

RESULT 3

US-09-157-397-2
 Sequence 2, Application US/09157397
 Patent No. 6165765
 GENERAL INFORMATION:
 APPLICANT: HONG, GUO FAN
 APPLICANT: HUANG, WEI-HUA
 TITLE OF INVENTION: DNA POLYMERASE HAVING ABILITY TO REDUCE INNATE
 TITLE OF INVENTION: SELECTIVE DISCRIMINATION AGAINST FLUORESCENT
 TITLE OF INVENTION: DYE-LABELLED DIDEOXYNUCLEOTIDES
 FILE REFERENCE: hongsequencelisting
 CURRENT APPLICATION NUMBER: US/09/157,397
 CURRENT FILING DATE: 1998-09-21
 EARLIER APPLICATION NUMBER: 08/544,643
 EARLIER FILING DATE: 1995-10-18
 EARLIER APPLICATION NUMBER: 08/642,684
 EARLIER FILING DATE: 1996-05-03
 NUMBER OF SEQ ID NOS: 11
 SOFTWARE: Patentin Ver. 2.0 - beta
 SEQ ID NO 2
 LENGTH: 587
 TYPE: PRT
 ORGANISM: Bacillus stearothermophilus
 US-09-157-397-2

Query Match 99.0%; Score 2936; DB 4; Length 587;
 Best Local Similarity 99.3%; Pred. No. 1.3e-211;
 Matches 583; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 2 AAGEKPLEMEFAIVDYTEEMLADKALVVEVMEENYHDAPIVGIALVNEHGRFMRPE 61
 DB 1 AAGEKPLEMEFAIVDYTEEMLADKALVVEVMEENYHDAPIVGIALVNEHGRFMRPE 60
 QY 62 TALADSOFPLAMTADETKKKSMFDKRAVVALKWKGIELRGVAFDILLAAVYLLNPADAGD 121
 DB 61 TALADSOFPLAMTADETKKKSMFDKRAVVALKWKGIELRGVAFDILLAAVYLLNPADAGD 120

QY 122 IAAVAKMAYEAVSDEAVYGVKGRSLPDEQTLAEHLVRKAAAIWALQEPFMDLARNNE 181
 DB 121 IAAVAKMAYEAVSDEAVYGVKGRSLPDEQTLAEHLVRKAAAIWALQEPFMDLARNNE 180
 QY 182 QDOLTKLEHAAIAALAEWEFTGVAVDTKRLQWSELAEOURAIQORIVELAGQEFNIN 241
 DB 181 QDOLTKLEHAAIAALAEWEFTGVAVDTKRLQWSELAEOURAIQORIVELAGQEFNIN 240
 QY 242 SPKQGLVILFEKQLPVLKTKTKTGYSTSDVLEKLAAPHHEIYENILHYRQGLQSTYIE 301
 DB 241 SPKQGLVILFEKQLPVLKTKTKTGYSTSDVLEKLAAPHHEIYENILHYRQGLQSTYIE 300
 QY 302 GLKVRPDTGKVTHTMNOALTOTGRLSAEPNLOINPIRTEPLGRKIROAFVSEPPDWLI 361
 DB 301 GLKVRPDTGKVTHTMNOALTOTGRLSAEPNLOINPIRTEPLGRKIROAFVSEPPDWLI 360
 QY 362 PAADYSQIEELRVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEVYANMRQAKAVN 421
 DB 361 PAADYSQIEELRVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEVYANMRQAKAVN 420
 QY 422 YGIYVGISDYGLAQNINITRKEAEFIERYPASFGVKQYQYQYQYQYQYQYQYQYQY 481
 DB 421 YGIYVGISDYGLAQNINITRKEAEFIERYPASFGVKQYQYQYQYQYQYQYQYQYQY 480
 QY 482 RRYLPDITSRNFNVSFAERTAMNTPIQGSADIIKKAMIDLAARLKEBOLQARLLQVH 541
 DB 481 RRYLPDITSRNFNVSFAERTAMNTPIQGSADIIKKAMIDLAARLKEBOLQARLLQVH 540
 QY 542 DELIEAPKEIEERLCELVEPVEWQAVTLRVPLKVDYHGFPTWYDAK 588
 DB 541 DELIEAPKEIEERLCELVEPVEWQAVTLRVPLKVDYHGFPTWYDAK 587

RESULT 4
 US-09-517-871-22
 : Sequence 22, Application US/09517871
 : Patent No. 6436677
 : GENERAL INFORMATION:
 : APPLICANT: Hartnett, John R.
 : APPLICANT: Huang, Fen
 : APPLICANT: Gu, Trent
 : TITLE OF INVENTION: Method of Reverse Transcription
 : FILE REFERENCE: PRMG-03833
 : CURRENT APPLICATION NUMBER: US/09/517,871
 : CURRENT FILING DATE: 2000-03-02
 : NUMBER OF SEQ ID NOS: 24
 : SOFTWARE: PatentIn Ver. 2.0
 : SEQ ID NO 22
 : LENGTH: 587
 : PRG: PRT
 : ORGANISM: Bacillus stearothermophilus
 US-09-517-871-22

Query Match 99.0%; Score 2936; DB 4; Length 587;
 Best Local Similarity 99.3%; Pred No. 1.3e-211;
 Matches 583; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 242 SPKQGLVILFEKQLPVLKTKTKTGYSTSDVLEKLAAPHHEIYENILHYRQGLQSTYIE 301
 DB 241 SPKQGLVILFEKQLPVLKTKTKTGYSTSDVLEKLAAPHHEIYENILHYRQGLQSTYIE 300
 QY 302 GLKVRPDTGKVTHTMNOALTOTGRLSAEPNLOINPIRTEPLGRKIROAFVSEPPDWLI 361
 DB 301 GLKVRPDTGKVTHTMNOALTOTGRLSAEPNLOINPIRTEPLGRKIROAFVSEPPDWLI 360
 QY 362 PAADYSQIEELRVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEVYANMRQAKAVN 421
 DB 361 PAADYSQIEELRVLAHIADDDNLIEAFORDLDIHTKTAMDIFOLSEEVYANMRQAKAVN 420
 QY 422 YGIYVGISDYGLAQNINITRKEAEFIERYPASFGVKQYQYQYQYQYQYQYQYQYQY 481
 DB 421 YGIYVGISDYGLAQNINITRKEAEFIERYPASFGVKQYQYQYQYQYQYQYQYQYQY 480
 QY 482 RRYLPDITSRNFNVSFAERTAMNTPIQGSADIIKKAMIDLAARLKEBOLQARLLQVH 541
 DB 481 RRYLPDITSRNFNVSFAERTAMNTPIQGSADIIKKAMIDLAARLKEBOLQARLLQVH 540
 QY 542 DELIEAPKEIEERLCELVEPVEWQAVTLRVPLKVDYHGFPTWYDAK 588
 DB 541 DELIEAPKEIEERLCELVEPVEWQAVTLRVPLKVDYHGFPTWYDAK 587

RESULT 5
 US-08-642-684-4
 : Sequence 4, Application US/08642684
 : Patent No. 5834253
 : GENERAL INFORMATION:
 : APPLICANT: HONG, GUO FAN
 : APPLICANT: PENG, ZHAI
 : APPLICANT: HUANG, WEI-HUA
 : TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
 : TITLE OF INVENTION: 3'-5' EXONUCLEASE ACTIVITY
 : NUMBER OF SEQUENCES: 15
 : CORRESPONDENCE ADDRESSES:
 : ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
 : STREET: 1100 NEW YORK AVENUE, N.W.
 : CITY: WASHINGTON
 : STATE: D.C.
 : COUNTRY: USA
 : ZIP: 20005
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: PatentIn Release #1.0, Version #1.25
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/642,684
 : FILING DATE: 03-MAY-1996
 : CLASSIFICATION: 435
 : ATTORNEY/AGENT INFORMATION:
 : NAME: CHAPIN, MARIANA K.
 : REGISTRATION NUMBER: 35,843
 : REFERENCE/DOCKET NUMBER: 4694/219502
 : TELECOMMUNICATION INFORMATION:
 : TELEPHONE: 202-861-3711
 : TELEFAX: 202-822-0944
 : TELEX: 6714627 CUSH
 : INFORMATION FOR SEQ ID NO: 4:
 : SEQUENCE CHARACTERISTICS:
 : LENGTH: 589 amino acids
 : TYPE: amino acid
 : STRANDEDNESS: single
 : TOPOLOGY: linear
 : MOLECULE TYPE: peptide
 US-08-642-684-4

Query Match 98.9%; Score 2932; DB 2; Length 589;
 Best Local Similarity 99.1%; Pred No. 2.6e-211;
 Matches 582; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 122 TAAVAKMOYEAVRSDEAVYGVKRSPLDQTLAEHLVRKAAAIWALEQPMDDLRNE 181
DB 121 TAAVAKMOYEAVRSDEAVYGVKRSPLDQTLAEHLVRKAAAIWALEQPMDDLRNE 180
QY 182 ODQLTKLEHALAAI LAEMEFTGVNVDTKRLEQMGSELAELAEQRIYELAGQEFNIN 241
DB 181 ODQLTKLEHALAAI LAEMEFTGVNVDTKRLEQMGSELAELAEQRIYELAGQEFNIN 240
QY 242 SPKQGVILFEKQLPVLKKTGTGYSTADVLEKLAHPHEIVENILHYRQLGKLOSTYIE 301
DB 241 SPKQGVILFEKQLPVLKKTGTGYSTADVLEKLAHPHEIVENILHYRQLGKLOSTYIE 300
QY 302 GLLKVVPRDPTGKVTMFPNQALTOTGRSSAEPNLQNIPIRTPLGRKIROAFVPSPDWLI 361
DB 301 GLLKVVPRDPTGKVTMFPNQALTOTGRSSAEPNLQNIPIRTPLGRKIROAFVPSPDWLI 360
QY 422 YGIVGSDYGLAQNLIITRKEAAEFIERYPASFPQVKQYMENIVQEAQKQGYVTTLLHR 481
DB 421 YGIVGSDYGLAQNLIITRKEAAEFIERYPASFPQVKQYMENIVQEAQKQGYVTTLLHR 480
QY 482 RYLPDITSRNFRNFRSFAERTAMNTPIQGSAADIITKAMIDLAARLKEEQLOARLLQVH 541
DB 481 RYLPDITSRNFRNFRSFAERTAMNTPIQGSAADIITKAMIDLAARLKEEQLOARLLQVH 540
QY 542 DELILEAPKEEIERLCELVPVMEQAVTLRVPLKVDYHYGPTWYDAK 588
DB 541 DELILEAPKEEIERLCELVPVMEQAVTLRVPLKVDYHYGPTWYDAK 587

RESULT 4

US-09-517-871-22
; Sequence 22, Application US/09517871
; Patent No. 6436677
; GENERAL INFORMATION:
; APPLICANT: Hartnett, John R.
; APPLICANT: Huang, Fen
; APPLICANT: Gu, Trent
; TITLE OF INVENTION: Method of Reverse Transcription
; FILE REFERENCE: FRG-03833
; CURRENT APPLICATION NUMBER: US/09/517,871
; CURRENT FILING DATE: 2000-03-02
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: PatentIn Ver. 2.0
; Q ID NO 22
; LENGTH: 587
; TYPE: PR1
; ORGANISM: Bacillus stearothermophilus
US-09-517-871-22

Query Match 99.0%; Score 2936; DB 4; Length 587;
Best Local Similarity 99.3%; Pred. No. 1.3e-211;
Matches 583; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 2 AGEKPLEEMEFAIVDVIITEMLADKAALVVEVMEENYHDAPIVGIALVNEHGRFFMRPE 61
DB 1 AGEKPLEEMEFAIVDVIITEMLADKAALVVEVMEENYHDAPIVGIALVNEHGRFFMRPE 60
QY 62 TALADSOFLAWLADETKKSMFMDKRAVVALKWGIELRGVAFDLLLLAAYLLNPAQDAGD 121
DB 61 TALADSOFLAWLADETKKSMFMDKRAVVALKWGIELRGVAFDLLLLAAYLLNPAQDAGD 120
QY 122 IAAVAKMOYEAVRSDEAVYGVKRSPLDQTLAEHLVRKAAAIWALEQPMDDLRNE 181
DB 121 IAAVAKMOYEAVRSDEAVYGVKRSPLDQTLAEHLVRKAAAIWALEQPMDDLRNE 180
QY 182 ODQLTKLEHALAAI LAEMEFTGVNVDTKRLEQMGSELAELAEQRIYELAGQEFNIN 241
DB 181 ODQLTKLEHALAAI LAEMEFTGVNVDTKRLEQMGSELAELAEQRIYELAGQEFNIN 240

QY 242 SPKQGVILFEKQLPVLKKTGTGYSTADVLEKLAHPHEIVENILHYRQLGKLOSTYIE 301
DB 241 SPKQGVILFEKQLPVLKKTGTGYSTADVLEKLAHPHEIVENILHYRQLGKLOSTYIE 300
QY 302 GLLKVVPRDPTGKVTMFPNQALTOTGRSSAEPNLQNIPIRTPLGRKIROAFVPSPDWLI 361
DB 301 GLLKVVPRDPTGKVTMFPNQALTOTGRSSAEPNLQNIPIRTPLGRKIROAFVPSPDWLI 360
QY 362 PAADYSQIELRVLAHIADDDNLI EAFQRLDLDIHTKTAMDIFOLSEEEVTANRRQAKAVN 421
DB 361 PAADYSQIELRVLAHIADDDNLI EAFQRLDLDIHTKTAMDIFOLSEEEVTANRRQAKAVN 420
QY 422 YGIVGSDYGLAQNLIITRKEAAEFIERYPASFPQVKQYMENIVQEAQKQGYVTTLLHR 481
DB 421 YGIVGSDYGLAQNLIITRKEAAEFIERYPASFPQVKQYMENIVQEAQKQGYVTTLLHR 480
QY 482 RYLPDITSRNFRNFRSFAERTAMNTPIQGSAADIITKAMIDLAARLKEEQLOARLLQVH 541
DB 481 RYLPDITSRNFRNFRSFAERTAMNTPIQGSAADIITKAMIDLAARLKEEQLOARLLQVH 540
QY 542 DELILEAPKEEIERLCELVPVMEQAVTLRVPLKVDYHYGPTWYDAK 588
DB 541 DELILEAPKEEIERLCELVPVMEQAVTLRVPLKVDYHYGPTWYDAK 587

RESULT 5

US-08-642-684-4
; Sequence 4, Application US/08642684
; Patent No. 5834253
; GENERAL INFORMATION:
; APPLICANT: HONG, GUO FAN
; APPLICANT: PENG, ZHAI
; APPLICANT: HUANG, WEI-HUA
; TITLE OF INVENTION: A NEW DNA POLYMERASE WITH PROOF-READING
; NUMBER OF SEQUENCES: 15
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CUSHMAN, DABBY & CUSHMAN
; STREET: 1100 NEW YORK AVENUE, N.W.
; CITY: WASHINGTON
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/642,684
; FILING DATE: 03-MAY-1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: CHAPIN, MARLANA K.
; REGISTRATION NUMBER: 35,843
; REFERENCE/DOCKET NUMBER: 4694/219502
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-861-3711
; TELEFAX: 202-822-0944
; TELEX: 6714627 CUSH
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 589 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-642-684-4

Query Match 98.9%; Score 2932; DB 2; Length 589;
Best Local Similarity 99.1%; Pred. No. 2.6e-214;
Matches 582; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 2 ABGEKPLEMEFALVIVITEEMLADKALVVEVMEENYHDAPIVIGIALVNEHGRPFMRPE 61
 DB 3 AKGEKPLEMEFALVIVITEEMLADKALVVEVMEENYHDAPIVIGIALVNEHGRPFMRPE 62
 QY 62 TALADSOFLAMLADETKKSMPDAKRAVVALKMKGIELRGVAFDILAAVLLNPAODAGD 121
 DB 63 TALADSOFLAMLADETKKSMPDAKRAVVALKMKGIELRGVAFDILAAVLLNPAODAGD 122
 QY 122 IAAVAKKQYEAVRSDAVYGVKVSRLPDEQTLAEHLVRKAAIYALWLEOPFMDLRRNE 181
 DB 123 IAAVAKKQYEAVRSDAVYGVKVSRLPDEQTLAEHLVRKAAIYALWLEOPFMDLRRNE 182
 QY 182 ODOLTKLHALAAILAEEMFTGVNVTGRLEQMSGLAEOLRAIEQRIYELAGQEFNN 241
 DB 183 ODOLTKLHALAAILAEEMFTGVNVTGRLEQMSGLAEOLRAIEQRIYELAGQEFNN 242
 QY 242 SPKQOLVILFEKQOLPVLKKTGTGYSADVLEKLAIPHHEIVENILAHYROLGKLOSTYIE 301
 DB 243 SPKQOLVILFEKQOLPVLKKTGTGYSADVLEKLAIPHHEIVENILAHYROLGKLOSTYIE 302
 QY 302 GLIKVVRPDTGKVTMFNOALTGTGLSSABPNLQNIPIRTPLGRKIROAFVSEPDWLI 361
 DB 303 GLIKVVRPDTGKVTMFNOALTGTGLSSABPNLQNIPIRTPLGRKIROAFVSEPDWLI 362
 QY 362 PAADYSQIELRVLAHADDNLIETAFORDIDHTKTAMDIFOLSEEVYANRRQAKAVN 421
 DB 363 PAADYSQIELRVLAHADDNLIETAFORDIDHTKTAMDIFOLSEEVYANRRQAKAVN 422
 QY 422 YGIVGISDYGLAQONINIRKEAAEFIERYFASFGVKQYMEINVOEAKOKGYVTTLLHR 481
 DB 423 YGIVGISDYGLAQONINIRKEAAEFIERYFASFGVKQYMEINVOEAKOKGYVTTLLHR 482
 QY 482 RRYLPDITSRNFNVRSPARTAMNTPIOGSADIIKKAMIDLAAKLEOOLARLLQVH 541
 DB 483 RRYLPDITSRNFNVRSPARTAMNTPIOGSADIIKKAMIDLAAKLEOOLARLLQVH 542
 QY 542 DELILAPKEIERLCELVPEVMEQAVTLRVPLKVYHYGPTWYDAK 588
 DB 543 DELILAPKEIERLCELVPEVMEQAVTLRVPLKVYHYGPTWYDAK 589

RESULT 6
 US-08-510-215A-2
 ; Sequence 2, Application US/08510215A
 ; Patent No. 5814506
 ; GENERAL INFORMATION:
 ; APPLICANT: KONG, HuiMin
 ; APPLICANT: PELLETIER, John J.
 ; APPLICANT: ALIOTTA, Jason M.
 ; TITLE OF INVENTION: OVER-EXPRESSION AND PURIFICATION OF
 ; TITLE OF INVENTION: A TRUNCATED THERMOSTABLE DNA POLYMERASE BY PROTEIN
 ; NUMBER OF SEQUENCES: 14
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: GREGORY D. WILLIAMS; NEW ENGLAND
 ; ADDRESSEE: BIOLABS, INC.
 ; STREET: 32 TOZER ROAD
 ; CITY: BEVERLY
 ; STATE: MASSACHUSETTS
 ; COUNTRY: US
 ; ZIP: 01915
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patentin Release #1.0, Version #1.25
 ; CURRENT APPLICATION NUMBER: US/08/510, 215A
 ; FILING DATE: 02-AUG-1995
 ; CLASSIFICATION: 435
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: WILLIAMS, GREGORY D.
 ; REGISTRATION NUMBER: 30901

REFERENCE/DOCKET NUMBER: NEB-113
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (508) 927-5054
 TELEFAX: (508) 927-1705
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 876 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-510-215A-2

Query Match 98.3%; Score 2915; DB 2; Length 876;
 Best Local Similarity 98.6%; Pred. No. 8.2e-210;
 Matches 579; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 2 ABGEKPLEMEFALVIVITEEMLADKALVVEVMEENYHDAPIVIGIALVNEHGRPFMRPE 61
 DB 290 ABGEKPLEMEFALVIVITEEMLADKALVVEVMEENYHDAPIVIGIALVNEHGRPFMRPE 349
 QY 62 TALADSOFLAMLADETKKSMPDAKRAVVALKMKGIELRGVAFDILAAVLLNPAODAGD 121
 DB 350 TALADSOFLAMLADETKKSMPDAKRAVVALKMKGIELRGVAFDILAAVLLNPAODAGD 409
 QY 122 IAAVAKKQYEAVRSDAVYGVKVSRLPDEQTLAEHLVRKAAIYALWLEOPFMDLRRNE 181
 DB 410 IAAVAKKQYEAVRSDAVYGVKVSRLPDEQTLAEHLVRKAAIYALWLEOPFMDLRRNE 469
 QY 182 ODOLTKLHALAAILAEEMFTGVNVTGRLEQMSGLAEOLRAIEQRIYELAGQEFNN 241
 DB 470 ODOLTKLHALAAILAEEMFTGVNVTGRLEQMSGLAEOLRAIEQRIYELAGQEFNN 529
 QY 242 SPKQOLVILFEKQOLPVLKKTGTGYSADVLEKLAIPHHEIVENILAHYROLGKLOSTYIE 301
 DB 530 SPKQOLVILFEKQOLPVLKKTGTGYSADVLEKLAIPHHEIVENILAHYROLGKLOSTYIE 589
 QY 302 GLIKVVRPDTGKVTMFNOALTGTGLSSABPNLQNIPIRTPLGRKIROAFVSEPDWLI 361
 DB 590 GLIKVVRPDTGKVTMFNOALTGTGLSSABPNLQNIPIRTPLGRKIROAFVSEPDWLI 649
 QY 362 PAADYSQIELRVLAHADDNLIETAFORDIDHTKTAMDIFOLSEEVYANRRQAKAVN 421
 DB 650 PAADYSQIELRVLAHADDNLIETAFORDIDHTKTAMDIFOLSEEVYANRRQAKAVN 709
 QY 422 YGIVGISDYGLAQONINIRKEAAEFIERYFASFGVKQYMEINVOEAKOKGYVTTLLHR 481
 DB 710 YGIVGISDYGLAQONINIRKEAAEFIERYFASFGVKQYMEINVOEAKOKGYVTTLLHR 769
 QY 482 RRYLPDITSRNFNVRSPARTAMNTPIOGSADIIKKAMIDLAAKLEOOLARLLQVH 541
 DB 770 RRYLPDITSRNFNVRSPARTAMNTPIOGSADIIKKAMIDLAAKLEOOLARLLQVH 829
 QY 542 DELILAPKEIERLCELVPEVMEQAVTLRVPLKVYHYGPTWYDAK 588
 DB 830 DELILAPKEIERLCELVPEVMEQAVTLRVPLKVYHYGPTWYDAK 876

RESULT 7
 US-09-517-871-20
 ; Sequence 20, Application US/09517871
 ; Patent No. 643677
 ; GENERAL INFORMATION:
 ; APPLICANT: Hartnett, John R.
 ; APPLICANT: Huang, Fen
 ; APPLICANT: Gu, Trent
 ; TITLE OF INVENTION: Method of Reverse Transcription
 ; FILE REFERENCE: PRNG-03833
 ; CURRENT APPLICATION NUMBER: US/09/517, 871
 ; FILING DATE: 2000-03-02
 ; NUMBER OF SEQ ID NOS: 24
 ; SOFTWARE: Patentin Ver. 2.0
 ; SEQ ID NO 20
 ; LENGTH: 876